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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,688	02/11/2002	Owen M. Briles	01-565	4410

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Barry L. Kelmachter
BACHMAN & LaPOINTE, P.C.
Suite 1201
900 Chapel Street
New Haven, CT 06510-2802

EXAMINER

OLTMANS, ANDREW L

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 09/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,688

Applicant(s)

BRILES ET AL.

Examiner

Andrew L Oltmans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 10, 12 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 8, 11, 13 and 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Joesten 5,638,522 in view of Japanese Patent 2001-123274 A Mitsui Mining and Smelting Co. Ltd.

2. Claims 1-2, 6-7, 9-10, 12, 14-16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joesten 5,638,522 (Joesten; cited on IDS filed February 2, 2002) in view of Japanese Patent 2001-123274 A Mitsui Mining and Smelting Co. Ltd. (JP '274).

NOTE: All references to JP '274 below are to the English Language abstract or the English Language translation provided by the examiner.

Joesten teaches the claimed steps of degreasing, cleaning, deoxidizing and immersing, including the specific pH, temperature and time of contact limitations claimed, wherein the immersing takes place in a composition that comprises the claimed amount of phosphate and fluoride, as instantly claimed in claims 1-2, 7, 10, 12, 14-16 and 20 (col 6):

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degreasing the magnesium alloy product in an aqueous-based degreasing solution;
cleaning the magnesium alloy product in a highly alkaline
15 **aqueous-based cleaning solution;**
deoxidizing the magnesium alloy product in a deoxidizing solution; and
immersing the magnesium alloy product in a solution
20 **having phosphate and fluoride ions wherein a pH level of the solution is controlled in an approximate range of 5 to 7, the solution being provided with a concentration by weight of sodium bifluoride at a concentration of about 0.3–0.5%, and being maintained at a temperature of approximately 130 degrees Fahrenheit while**
25 **immersing the magnesium alloy product for a period of approximately thirty minutes.**

Joesten fails to meet all the limitations of the instant claims in that Joesten does not explicitly teach the inclusion of the corrosion inhibitor instantly claimed.

JP '274 teaches a composition for treating magnesium and the method for using the composition to treat magnesium (abstract), wherein the composition includes the claimed corrosion inhibitor, potassium permanganate in the claimed amount in combination with phosphate (paragraph [0012]), wherein the combination of phosphate and permanganate results in a corrosion resistant magnesium alloy product, wherein the life of processing bath is extended (paragraph [0006]).

One of ordinary skill in the art at the time that the invention was made would have found the use of the corrosion inhibitor of JP '274 in Joesten obvious because one of ordinary skill in the art would have been motivated to use the corrosion inhibitor of JP '274 in combination with the phosphate of Joesten in order to provide Joesten with the desirable properties of an increased corrosion resistance and increased bath life, as taught in JP '274 (paragraph [0006]).

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Joesten 5,638,522 in view of Riley 5,520,750

3. Claims 1-5, 7, 9-10, 12, 14-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joesten 5,638,522 (Joesten; cited on IDS filed February 2, 2002) in view of Riley 5,520,750 (Riley).

Joesten teaches as set forth above in paragraph 2, as recited in claims 1-2, 7, 10, 12, 14-16 and 20.

Joesten fails to meet all the limitations of the instant claims in that Joesten does not explicitly teach the inclusion of the corrosion inhibitor instantly claimed.

Riley teaches a composition for treating aluminum and the method for using the composition to treat aluminum (abstract), wherein the composition includes the claimed corrosion inhibitor, sodium vanadate or sodium tungstate in the claimed amount in combination with phosphate (col 1, lines 62-67), wherein the combination of phosphate and vanadate or tungstate results in a corrosion resistant aluminum alloy product (col 2):

10 **Ammonium and alkali metal salts such as ammonium vanadate and tungstate or sodium vanadate and tungstate are generally the preferred source of the metal oxo ion. Preferably the metal oxo ion is present in a concentration from 10 to 100 g/l and more preferably from 10 to 60 g/l.**

(col 6):

25

TABLE 9

Passivation system	Results after 7 weeks wet stack @ 40° C.
Phosphoric acid	50-60% white corrosion product on surface some surface blackening also evident
Molybdate + phosphoric acid	No blackening evident
Vanadate + phosphoric acid	No blackening evident
Tungstate + phosphoric acid	Light/medium black blotches seen on up to 10% of sample surface
Chromate control	No corrosion evident

One of ordinary skill in the art at the time that the invention was made would have found the use of the corrosion inhibitor of Riley in Joesten obvious because one of ordinary skill in the art would have been motivated to use the corrosion inhibitor taught in Riley for aluminum with the phosphate of Joesten because aluminum and magnesium and chemically similar (i.e. light weight metallic elements having an oxidatively active surface) and to provide Joesten with the desirable property of increased corrosion resistance, as taught in Riley (col 6, Table 9).

Allowable Subject Matter

4. Claims 8, 11, 13 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

a. A primary reason for the allowance of claims 8, 11, 13 and 21, under the above conditions, is that the prior art fails to teach or suggest, alone or in combination, the

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instantly claimed composition or the method of using the composition wherein the composition further includes the surfactant in the claimed compositional range.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Oltmans whose telephone number is 703-308-2594. The examiner can normally be reached 7:00-3:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Andrew L. Oltmans

Examiner

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September 8, 2003